

Project Health, Safety and Environmental Guidelines

The California Department of Water Resources (CDWR) is committed to providing a safe, healthy workplace for its employees and its contractors and subcontractors. The safety and well-being of those with whom CDWR works is of paramount importance to the CDWR. Job safety is considered a critical driver in our aim to achieve incident-free operations through safe, reliable, efficient and environmentally sound operations.

CONTRACTOR shall comply with the following Project Health, Safety and Environmental Guidelines (HSE) when performing work for the CDWR. These guidelines are to be considered as minimum standards. These guidelines are intended to supplement and not replace CONTRACTOR's safety program. It is CONTRACTOR's responsibility to develop and implement a program to achieve Incident-Free Operations. CONTRACTOR's compliance with these guidelines in no way alters CONTRACTOR's status as an independent contractor or CONTRACTOR's liability and indemnity under the Power Purchase Agreement (PPA), Ground License Agreement (GLA) or any other agreements entered into between CDWR and the CONTRACTOR.

The term CONTRACTOR, as used in these guidelines, shall be understood to include any and all subcontractors performing work under terms of the contract under consideration.

1.00 Responsibility for Compliance

- 1.01 CONTRACTOR shall communicate the HSE, as well as any other health, safety and environmental requirements provided by CDWR, to all of its employees, subcontractors, and the employees of its subcontractors.
- 1.02 CONTRACTOR shall also require its subcontractors to comply with such HSE laws, rules, regulations and standards and any other requirements specified by CDWR in connection with the performance of work for the CDWR and shall be responsible for ensuring such compliance by its subcontractors.
- 1.03 Prior to the commencement of any work activity, CONTRACTOR shall provide CDWR with the name of its qualified representative(s) and those of its subcontractors who will be responsible for the HSE at the job site(s).
- 1.04 CONTRACTOR shall have in place a comprehensive HSE program with a strong focus on continuous performance improvement. At any time, the CDWR may require CONTRACTOR to furnish CDWR with a copy of the CONTRACTOR's HSE program together with complete details concerning the implementation of such program. CDWR shall have the right to audit CONTRACTOR's HSE program. These guidelines are intended to supplement, not replace, CONTRACTOR's HSE program, for which CONTRACTOR remains responsible.

2.00 Health, Safety and Environmental Requirements and Deliverables

- 2.01 CONTRACTOR shall comply with all Federal, State and Local regulatory requirements and must meet comply with CDWR's applicable policies, procedures and safe work

processes which shall be provided upon award of the RFP. CONTRACTOR shall provide a copy of their Injury and Illness Prevention Program (IIPP) as required by Cal OSHA, Title 8 §3203 to CDWR for review. The CDWR representative will review CONTRACTOR's IIPP and either accept it, or return it to CONTRACTOR with notice of deficiencies within 2 weeks.

- 2.02 CONTRACTOR shall develop a project site specific health and safety plan (HASP) for this Project. Inclusive in the HASP it is required to develop documented pre-work safety plans (PWSP) for Critical or Medium to High Risk work activity, including but not limited to the work described in Section 2.04 below and Appendix A. Critical or medium to high risk work shall have a documented strategic risk analysis (reference subsection 7.06 in this document) and hazard mitigation process completed. Contractor can use as guidance the CDWR Code of Safe Work Practices 5.12 Hazard Assessments and Hazard Mitigation Procedure, {Pre-Work Safety Plan (PWSP) and Job Hazards Analysis (JHA)}.
- 2.03 CONTRACTOR will submit to CDWR a completed HASP for CDWR review. The CDWR representative will review CONTRACTOR's HASP and either accept it, or return it to CONTRACTOR with notice of deficiencies within 2 weeks.

Please note not all of the PWSP's need to be completed at the time of the Project HASP as it is understood work planning may be ongoing during the project. PWSP's shall be submitted as defined in subsection 2.05.

- 2.04 CDWR has identified the following Items as Critical or Medium to High Risk activities for this Project and shall be addressed with the PWSP process, this is not an all-inclusive list and other Critical or Medium to High Risk activities may be added as the job scope changes or at the discretion of the CDWR. Reference Appendix A for a comprehensive list of Critical Work or Medium to High Risk Work Activities.
- Working at heights where Fall Protection must be worn;
 - Working over or near Water;
 - Heat Mitigation Plan;
 - Crane, hoisting, and rigging operations (lift plans and crane and riggers certifications to be included);
 - Excavations / Entry into excavations greater than 4';
 - Confined Space Entry;
 - Hydraulic Excavators, wheel/track/backhoe loaders used to transport or hoist loads with rigging;
 - Simultaneous Operations Work Activity – Defined as activity, no matter the geographic location, where one work activity can have a direct impact on another work activity;
 - Dust Mitigation plans;
 - Emergency Action and rescue plans for both on land and when working over or near water;
 - Secondary Containment and safe handling and transfer of onsite fuel storage;

- Use of Wheeled Equipment (diesel) as prime movers for pumps;
 - Provisions for work activity adjacent to project site not under control of the CONTRACTOR, (farming operations, pesticide spraying, harvesting, etc.).
 - High Voltage electrical work
- 2.05 At least 10 days prior to starting work, CONTRACTOR shall submit this information to CDWR for review. The CDWR representative will review CONTRACTOR's PWSP and either accept it, or return it to CONTRACTOR with notice of deficiencies.
- 2.06 Prior to starting work, CONTRACTOR's on-site manager shall participate in a pre-work safety meeting with designated CDWR representative(s).
- 2.07 CONTRACTOR shall not start work without a Pre-Work Safety Plan that has been accepted by CDWR.
- 2.08 Prior to starting any work, CONTRACTOR's shall develop a Job Hazards Analysis (JHA) consistent with a Hazard Assessments and Hazard Mitigation Procedure. The JHA must be completed daily and be task specific. The JHA shall be developed, reviewed by, and fully understood by all persons who will work under its protection. All personnel whose work activity is in a shared work location must review each other's JHA's to ensure combined safe work.
- 2.09 If a conflict is identified where one work activity may conflict with another then a Stop Work shall take place and the CDWR Representative notified. Work may only restart after the conflict is resolved and all parties understand the resolution.
- 2.10 CONTRACTOR shall, upon CDWR's request, furnish the CDWR with a copy of each JHA and documentation showing that the JHA has been communicated to and fully understood by all workers. All completed JHA's shall be placed in the project file and provided to CDWR representative.

3.00 Entrance to Property

- 3.01 CONTRACTOR shall comply with all security requirements as specified in the PPA and GLA.
- 3.02 CONTRACTOR shall ensure that only those persons having authorized business in connection with the PPA and GLA are allowed on the work site.
- 3.03 CDWR shall advise the CONTRACTOR as to the entrance area and/or parking facilities, if any, to be used by CONTRACTOR, their employees, agents, and Sub-contractors.

4.00 Traffic and Vehicles

- 4.01 All CONTRACTOR traffic on CDWR property shall observe the posted speed limit, or if not posted, a safe speed in light of existing conditions and shall follow any other safe driving practices as may be established by CDWR such as:
- a) Respect barricades and rope-off areas. Do not drive or park in these areas.

- b) Avoid backing up; drive forward whenever possible Make sure back-up alarms function properly.

4.02 CONTRACTOR shall ensure that all vehicles, cranes and rigging, vessels, and equipment they provide are maintained in safe operating condition and that operators are properly qualified, licensed, insured and/or certified.

5.00 Stop Work Authority

5.01 All CONTRACTORS have the right to Stop Work if they see or perceive to see an Immediately Dangerous to Life or Health situation, or a situation which can become Immediately Dangerous to Life or Health situation if not corrected. This is governed in CDWR's Project O&M Instruction No. OP-2 attachment 1 of 1, to be provided upon award of the RFP.

5.02 All CONTRACTORS must have a Stop Work Authority process. All site personnel shall be trained in its use.

6.00 Training and References

6.01 The CONTRACTOR shall be advised of CDWR's Division of Engineering (DOE) and Division of Operations and Maintenance's (O&M) IIPP and applicable Construction Branch Safety Procedures, and O&Ms Project O&M Instruction No. OP-2 upon award of the RFP.

7.00 Definitions

7.01 Classified Area - where fire or explosion hazards may exist due to flammable gases or vapors, flammable liquids, combustible dust, or ignitable fibers or filings as defined in National Electrical Code (NEC) Articles 500 through 504.

7.02 Critical Work – work where project delays may cause unacceptable disruption in producing power or water deliveries.

7.03 Hot Work - Hot Work includes, but is not limited to, processes such as arc welding, oxy-fuel gas, welding, open-flame soldering, brazing, thermal spraying, oxygen cutting, arc cutting, or an ignition source that is capable of initiating fires or explosions within 35 feet of Classified Area. (Reference California Code of Regulations Title 8 4794 and California Code of Regulations Title 8 4850)

7.04 Fall Protection – A designed system which uses personal protective equipment and engineered components to achieve Fall Restraint, Fall Arrest and when the previous are infeasible the use of Safety Nets. (Reference California Code of Regulations Title 8, Sections 1620, 1621, 1669-1671, 2320.8, 3210)

7.05 Immediately Dangerous to Life or Health (IDLH) - means any condition that poses an immediate or delayed threat to life or that would cause irreversible adverse health effects or that would interfere with an individual's ability to escape unaided from a permit space.

Note: Some materials -- hydrogen fluoride gas and cadmium vapor, for example, may produce immediate transient effects that, even if severe, may pass without medical attention, but are followed by sudden, possibly fatal collapse 12-72 hours after exposure. The victim “feels normal” from recovery from transient effects until collapse. Such materials in hazardous quantities are considered to be “immediately” dangerous to life or health.

7.06

The CONTRACTOR will provide to CDWR an Electrical Safety Program that meets or exceeds the NFPA (National Fire Protection Association) 70E. The CONTRACTOR shall ensure that all of the employees have been train on this policy and tested for competency. The CONTRACTOR will ensure that all of the workers have been trained and tested for competency to work on electrical equipment under the State of California’s Title 8 section on High Voltage Electrical Safety Work.

7.07

Risk Analysis of Medium or High Risk Work – a risk analysis using the ANSI/ASSE/ISO Risk Assessment and Risk Management Standards or equivalent process which uses a ranking process of probability of occurrence and severity of outcome of incident if an incident were to occur. This risk ranking is applied to a matrix to identity risk as one of the categories:

- Very High
- High
- Medium
- Low

Appendix A - Critical or Medium to High Risk Activities

- Working at heights where Fall Protection must be worn
- Scaffolding
- Working over or near Water
- Work in high or low temperature extreme areas (High temperature locations 85 degrees F or greater or low temperature locations where frost bite or hyperthermia can occur)
- Crane, hoisting, and rigging operations(lift plans to be included)
- Critical lifts as defined in CDWR CCDWR 6.2
- Excavations
- Entry into excavations greater than 4'
- Confined Space Entry
- Hot Work in a hot work permitted area
- Hydraulic Excavators, wheel/track/backhoe loaders used to transport or hoist loads with rigging
- Work within environmentally sensitive areas
- Simultaneous Operations Work Activity – Defined as activity, no matter the geographic location, where one work activity can have a direct impact on another work activity.
- Dust Mitigation
- Impalements
- Rope Access
- Emergency plans
- Rescue plans
- Working where lead or asbestos maybe present
- Abatement Plans
- Handling & disposal of material where action level may be exceeded
- Fresh Air Work
- Working around Electrical Power Lines overhead and/or below grade
- OP-2 Lock out/Tag Out
- Heat Prevention program
- Provisions for work activity adjacent to project site not under control of the CONTRACTOR, such as farming operations (pesticide spraying, harvesting, etc.)